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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,691	01/26/2004	Gary L. Bowlin	49122-0142(297109)	9462
23370	7590	02/26/2007		
JOHN S. PRATT, ESQ KILPATRICK STOCKTON, LLP 1100 PEACHTREE STREET ATLANTA, GA 30309			EXAMINER SINGH, SATYENDRA K	
			ART UNIT	PAPER NUMBER
			1657	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/764,691	BOWLIN ET AL.	
	Examiner	Art Unit	
	Satyendra K. Singh	1657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 3,6-20 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Applicant's response filed with the office on December 20<sup>th</sup> 2006 is duly acknowledged.

Claims 3, 6-20 and 22 (groups II-VII) are withdrawn from further consideration.

Claims 1, 2, 4, 5, and 21 (elected invention of group I) are pending and examined on their merits in this office action.

### ***Election/Restrictions***

Applicant's election of **group I** (claims 1, 2, 4, 5 and 21 directed to **electroprocessed fibrin**) in the reply filed with the office on December 20<sup>th</sup> 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, and did not specifically state whether the election is done with or without traverse (see applicant's remarks, page 2, in particular), the election has been treated as an election **without traverse** (MPEP § 818.03(a)).

### ***Claims***

Claim 5 recites the limitation "**nucleic acid**" twice in the claim. Appropriate correction is requested.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-2, 4-5 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being **indefinite** for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite "**electroprocessed fibrin**"

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which is vague and indefinite because the metes and bounds of electroprocessing encompassed by the term are not clear. That is, what is the nature and manner of electroprocessing that the claims intended to encompass, as currently recited.

2. The instant claim 4 recites "**fibrin matrix** ... further comprising" which lacks antecedent basis. This claim depends ultimately from the broader claim 1, which recites "electroprocessed fibrin". The instant claim 4 should probably depend from claim 21, as currently recited.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2, 4-5 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Coffee RA (WO 98/03267; IDS, citation # 70).

Coffee RA (IDS) discloses electrohydrodynamically making fiber mats for use in treating wounds or burns (see Coffee RA, abstract, and claims 1-5, in particular).

Among the various fibers that may be used is fibrin, which may be formed in situ by action of thrombin on fibrinogen (see Coffee RA, page 28, claims 20, 25-26, 36). A wide range of biologically active ingredients may be incorporated, including nucleic acids, growth factors, therapeutic agents, cells; etc. (see Coffee RA, pages 5-6, in

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particular). The fiber mat may be incorporated into conventional bandages and wound dressings (see Coffee RA, pages 6 and 17, in particular).

2. Claims 1, 2 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Freyssinet et al (1984; IDS, citation # 104).

Freyssinet et al (IDS) disclose orienting fibrin formed from monomers in solutions under an electromagnetic field (considered to be an electroprocessing step). Freyssinet et al also disclose fibrin (electromagnetically oriented) in the form of a matrix such as fibrin gels, suitable for three dimensional structure studies (see abstract, in particular).

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4, 5 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Coffee RA (US 2001/0003148; IDS, citation # 1), Coffee RA (US 6,252,129; IDS, citation No. 46).

Coffee RA (US 2001/0003148; IDS) discloses an electrohydrodynamic method of producing mats from suitable fibers. Specifically, fibrin is produced (paragraph 0017, 0085, claim 26 and claim 36). The fibers may compose additional biologically active material (paragraph 0021). Coffee RA (US 6,252,129) discloses an electrohydrodynamic method of producing mats from suitable fibers. Specifically, fibrin

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is produced (column 3, line 43; column 14, line 12). The fibers may compose additional biologically active material (see, paragraph bridging columns 3-4).


**Conclusion**

**NO claims are allowed.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satyendra K. Singh whose telephone number is 571-272-8790. The examiner can normally be reached on 9-5MF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon P. Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Satyendra K. Singh  
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